

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A ~~clean room ceiling~~ light fixture, for a clean room ceiling formed by a plurality of frame members arranged in an H-Bar configuration, the light fixture comprising:
 - (a) a sealed housing module sized and shaped for removably replaceable engagement within the ceiling frame members, the module having a downwardly-directed light emitting aperture;
 - (b) a heat sink fixed within the module and spaced from an internal wall of said housing the module to define a cable raceway between said the heat sink and said housing the internal wall;
 - (c) a plurality of light-emitting diodes mounted within said housing the module on said the heat sink, each one of said the light-emitting diodes having a lens for directing light emitted by said the one of said the light-emitting diodes through said the aperture into said the clean room; and,
 - (d) a power supply for applying drive current to said the light-emitting diodes.
2. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, each one of said the light-emitting diodes further having a reflector for directing light emitted by said the one of said the light-emitting diodes through said the aperture into said the clean room.
3. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, further comprising an anti-reflective coating on each one of said the lenses.
4. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 2, further comprising an anti-reflective coating on each one of said the reflectors.
5. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 2, wherein said the reflectors are formed of a high refractive index material.
6. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 5, wherein said the high refractive index material is polycarbonate.

7. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 2, further comprising, for each one of said the lenses and an adjacent one of said the reflectors, a refractive index matching compound applied between said the one of said the lenses and said the adjacent one of said the reflectors.
8. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 6 7, wherein said the refractive index matching compound is an elastomer.
9. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 2, wherein said the reflectors are formed of a spectrally selective filter material.
10. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 5 9, wherein said the spectrally selective filter material is a deep dyed polyester.
11. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 5 9, wherein said the spectrally selective filter material is a spectrally selective thin film filter material.
12. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, further comprising, a holographic diffusion lens for uniformly distributing, through said the aperture, said the light emitted by said the light-emitting diodes.
13. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 12, wherein said the holographic diffusion lens further comprises a structured surface prismatic film.
14. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, further comprising, a variable transmissivity filter for uniformly distributing, through said the aperture, said the light emitted by said the light-emitting diodes.
15. (Cancelled)
16. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, wherein said housing the module is removably magnetically attachable to said the clean room ceiling frame members.

17. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, wherein ~~said housing~~ the module is removably adhesively attachable to ~~said~~ the ~~clean room ceiling~~ frame members.
18. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, wherein ~~said~~ the power supply further comprises an uninterruptible power supply.
19. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, wherein ~~said~~ the power supply further comprises an in-line DC-DC converter coupled between a high voltage DC power supply and ~~said~~ the fixture.
20. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 18, wherein ~~said~~ the power supply further comprises an in-line DC-DC converter coupled between ~~said~~ the uninterruptible power supply and ~~said~~ the fixture.
21. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 18, wherein ~~said~~ the uninterruptible power supply is located at a remote ~~distance~~ location from ~~said~~ the fixture.
22. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 20, wherein ~~said~~ the uninterruptible power supply is located at a remote ~~distance~~ location from ~~said~~ the fixture.
23. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 19, wherein ~~said~~ the DC-DC in-line converter is located closely proximate to ~~said~~ the fixture.
24. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 20, wherein ~~said~~ the DC-DC in-line converter is located closely proximate to ~~said~~ the fixture.
25. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 22, wherein ~~said~~ the DC-DC in-line converter is located closely proximate to ~~said~~ the fixture.

26. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, wherein said the power supply further comprises a regulator for regulating said the drive current as a function of time.
27. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 26, further comprising a light sensor located in said the clean room and electrically connected to said the regulator, said the light sensor producing an output signal representative of light intensity near said the light sensor, and wherein said the regulator further regulates said the drive current as a function of said the output signal.
28. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 26, further comprising a light sensor located in said the clean room and electrically connected to said the regulator, said the light sensor producing an output signal having a magnitude representative of light intensity near said the light sensor, and wherein said the regulator further regulates said the drive current in inverse proportion to said the output signal magnitude.
29. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, further comprising a programmable controller electrically connected between said the power supply and said the light-emitting diodes, said the programmable controller for programmatically regulating said the drive current as a function of time.
30. (Currently Amended) A ~~clean room ceiling~~ light fixture as defined in claim 1, further comprising a programmable controller electrically connected between said the power supply and said the light-emitting diodes, said the programmable controller for programmatically regulating said the drive current as a function of time to maintain substantially constant light flux output of said the light-emitting diodes.